

Abstract of the Disclosure

Methods of supplying an oxygen rich mixture to the occupants of an aircraft. The mixture is produced through a pressure swing adsorption system which has both an adsorption / production phase and a desorption / regeneration phase. The duration of one cycle of the adsorption system is less than ten seconds. The system makes use of a high-performance adsorbent which has a particle size of less than about 0.8 mm. The feed air which is introduced to the system has an inlet temperature between 50°C and 90°C.